‘Comparative Study of Attitude towards E-Learning among School Teachers of Uttarakhand in relation to their self-belief and technophobia’

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Year: 2023

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Candidate's declaration

I, **Atulya Verma**, declare that the synopsis entitled, "***Comparative Study of Attitude towards E-Learning among School Teachers of Uttarakhand in relation to their Self-belief and Technophobia***" being submitted in the partial fulfillment of the requirement for the award of the degree of Doctor of Philosophy in Education under ICFAI Education School, The ICFAI University, Dehradun during the academic year 2023-24.

It is the work that is expected to be carried out under the supervision of Dr. Meena Bhandari. It is further declared that the synopsis is within the plagiarism limit and copy of the same is attached as per the University norms.

Signature Atulya

Date: 17.10.2023

Candidate's Name: Ms. Atulya Verma

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CERTIFICATE

This is to certify that the thesis entitled, "***Comparative Study of Attitude towards E-Learning among School Teachers of Uttarakhand in relation to their Self-belief and Technophobia"*** is anoriginal piece of work done by ***Ms. Atulya Verma*** under my supervision being submitted in the partial fulfillment of the requirement for the award of the degree of Doctor of Philosophy in Education under ICFAI Education School, The ICFAI University, Dehradun during the academicyear 2023-24.

Further, it is certified that the synopsis is within the plagiarism limit and a copy of the same is attached as per the University norms.

Signature of the Supervisor in full Meena. 17/10/23.

Name in Capital Letters Dr. Meena Bhandari

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ABSTRACT

One of the biggest hurdles in learning is the press of time. If enough timeand attention is paid to the student, any child can learn. But catering to the needs of each and everychild in a class of 35-40 students becomes a challenging task. A Teacher is responsible for instructional delivery with providing substantial attention to one and all. Using technology can help face this issue by helping the child learn at his/ her own pace and style. It provides the Teacherwith more time to be with one -on-one students. With digital records, Teachers can have access to the local parents, administrators and stakeholders. It all depends upon the Teacher to use the ICT tools and lessen the paperwork and extend opportunity for exploration, and application of information. Thoughtful work on ICT depends upon use of ICT tools, willingness to adopt and having potential for using ICT well. There are different reasons that influence from person to person in the adoption of technology tools. Factors or the underlying causes behind that include availability of hardware, freedom of access, positive previous experience, lack of technostress, no age concerns, awareness, comfort with the present skills etc.

This research proposal tends to search for the affective factors involved in usage of ICT tools. It emphasizes on knowing the intensity of willingness or reluctance in using Technology. As acceptance and accessibility depend upon Institutional support, this proposal plans to study on rural and urban School Teachers of Uttarakhand. Our Uttarakhand statehas a distinctive structure covering basic Education, Secondary Education and State Council of Research and Training. Teachers teaching at various levels must have various interests, attitudesand natural tendency to use technological tools in the classroom. Teachers of Primary and MiddleSchool shall be studied to know that are they having stress in using.

Number of issues have emerged from the uptake of technology whose impact has not been diagnosed. But getting the best from ICT depends on many variables on the part of Teachers and students. In the world of digitalization, when things are just a click away, there is a dire need to figure out the loophole in effective usage of Technology by the Teacher.

1. Introduction

Advancement of technology has led to the positive change in the learning pattern of students and teachers. With the help of learning tools, teachers can bring surplus options inside the classroom for students to acquire information in an interesting manner. Time has gone when Teachers were the primary source of dissemination of knowledge. Technology is used in education in an attempt to create varied instructionalpractices that reflect the scenario in which children learn and grow. When a teacher is instructing students,he/ she has to be careful with the child's current abilities and how those abilities and potential be honed. The need for Education to adapt to a changing world is the reason for Technology tools to become increasingly popular. Hitherto computers were used in the classroom for their word processing capabilities, storing data and for interactive games for passive learners to motivate students for their activerole.

"Technology is part of everyday life here-it's part of everything we do," says Principal Linda Goldberg of Hunters Woods Elementary School in Reston, Virginia.

Lectures and drill method are no longer appreciated in today's Teaching Learning practice. As educators strive to mould the life of students to meet higher standards and gain deeper understanding regarding thecontent taught, Teachers need to become a role model and become equipped with new set skills and expertise. Projects are a way in technology equipped classes in which students develop programs, databases and multimedia in order to master the development of equipment and software.

Technology extends a helping hand in order to gather data from remote sites via telecommunications in the form of the World Wide Web. Thus, students are able to make use of a variety of information technologies for preparing notes, taking pictures, integrating media objects such as texts, graphics, videos, animations and sound to generate movies and video programs. Technology can assist us in our professional development through assistance in intensive sessions where Teachers develop the quality ofinquisitive and are able to explore new ideas and materials. Technology also assists in follow up support
/ feedback attained by Teachers in analyzing the intensity of Teaching Learning practice and in making a decision regarding implementing new practices.

Technology has also proved as a powerful tool that provides academicians with new ways to address problems like lack of availability of much time, resources and lack of expertise in handling technological tools. This thing is very important for everyone considering and appreciating the importanceof Internet communication technology in keeping pace with current events.

E- Learning

E- Learning is an act of providing training to students, Teachers, Employees with the help of electronic / Technological tools and assisting in making modification in the behavior. Another name of E-Learning is web-based learning or virtual learning.

It has revolutionized the traditional style of dissemination and sharing of knowledge by Teachers.

Objective of Teaching is to come down to the level of students and make the content easy to comprehend. Technology has helped in achieving this said objective by providing an environment for joint efforts. There are a variety of students in class, considering their mental capability, readiness to learn, potential to acquire and retain it for a longer time and so on. Technology caters to the needs and demands of most of the students of a class by making the information intersensory as the world of multimedia is a fascinating one.

Modern settings are now in favor of curricula that promote competency, performance, skill development, practical oriented knowledge rather than theory-based content delivery.

E-Learning Types

E-Learning is classified in two forms synchronous (communication happening through live chat rooms) and asynchronous (Communication takes place by giving a time frame to complete course work with some time constraints).

E-Learning in any form facilitates us with n number of options to increase the potential of students who can and cannot attend classes due to different ability, illness or any commitment. Though, it has

contributed in a big way to lessen our problems of being at different geographical locations, different pace of learning, there have been change in attitude towards adoption of E-Learning tools. The impact of technological tools is greater when a community of Teachers work together in a conducive and healthy environment. Despite, there are different obstacles in using ICT be it related to Teachers, institutional, hereditary, environmental factors etc.

Increase in commercialization and showy tactics of Educational Institutions, Faculty, staff and students struggle to hold the grip with computer applications, network configurations and upgradations in the software which changes their attitude towards adopting the information communication tools.

Pedagogy of E-learning

E-Learning Pedagogy is the art and science of online Education which focuses on cognitive processes involved in retention and learning of the content, emotional perspective which talks about the acceptance of E-Learning tools, motivation, fun etc. behavioral perspective which focuses on change in behavior through role playing and dramatization.

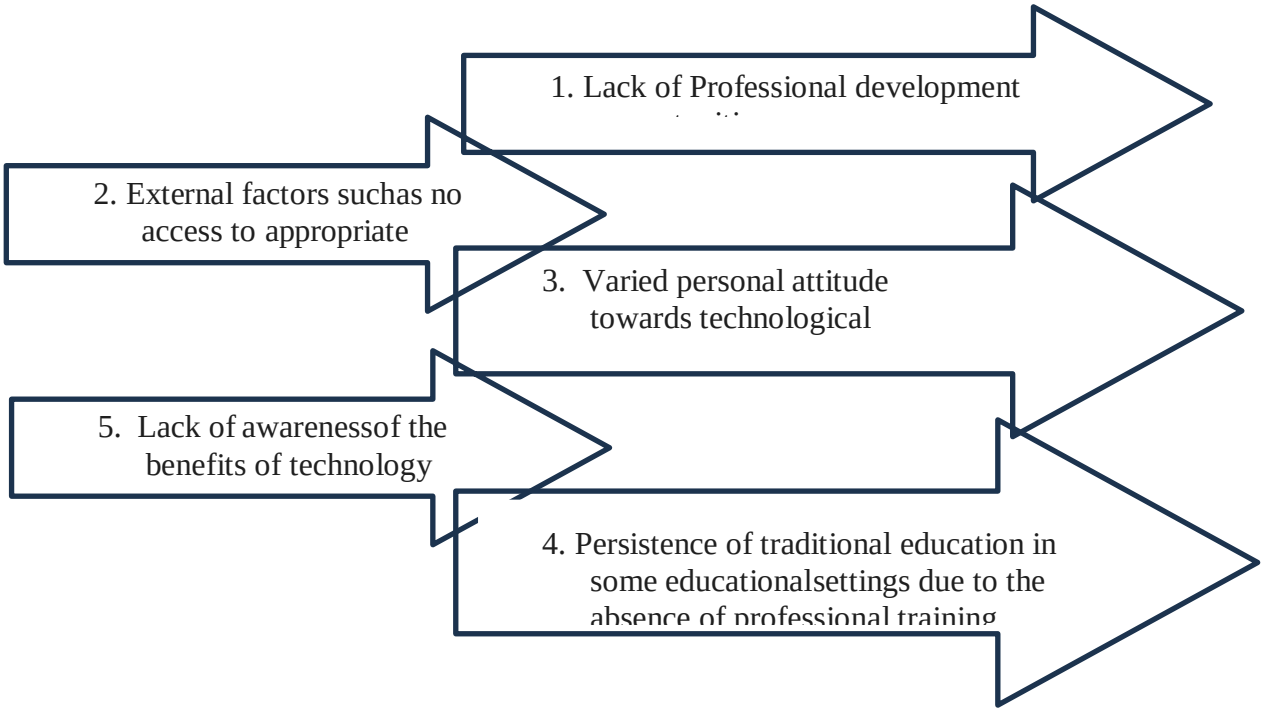
Barriers to implementation of Technology in Education include age concerns, comfort with use of present skills, lack of motivation, in adequate infrastructural facilities, lack of support from supervisors, negative attitude, technophobia, no training program to upgrade the skills of trainee. Technology is just an add-onto the curriculum which prepares a teacher with successful interactive learning projects.

2. Research Problem

E-learning pedagogy is gaining importance in today's scenario. Uttarakhand is a state which has got wide diversity in landscape ranging from diverse urban and rural locations, the teachers in those schools are from different levels (primary and middle school) have different competency levels with the ICT also thesubject teachers from different branches have different compatibility with ICT tools. Plus, there are instances in which schools teachers are afraid of ICT tools. The research will analyses and discuss teacher's attitude for E Learning based on self-belief and technophobia. This research recommendsthe importance of providing adequate training and usage of ICT tools among the primary school teachers. A study conducted by Guha (2000) revealed that the teachers are expected to be competent in using computers in instruction as they could see progressive changes in their teaching strategies while using technology. There is a gap in the computer competency arising due to attitudinal, motivational and anxiety factors in the primary school teachers of the city. This study can enable the other investigators to study with the population of their region. Different research have identified the relationship between

computer competency and attitude towards computer usage. Teachers' low level of access to school computers may have played a role in teachers' modest computer competence. A very high correlation for teachers' attitudes towards ICT in education andtheir perceptions of computer attributes (Alberni, 2004). The studies (Olufemi and Oluwatayo, 2014;

Ahmad & Usman, 2013; Selvaganapathy & Raja, 2012) indicate technophobia as the reasons for the less computer competency among the school teachers. Most of the studies teachers from rural background school have more computer anxiety than urban school teachers. (Kannan, Muthumanickam & Chandras,2012; Selvaganapathy & Raja, 2012). After analyzing the related studies the researcher came to a conclusion that and the attitude towards computer and computer anxiety among teachers may be themajor obstacles which affect the computer competency of the teachers. The intention of the researcher is to find what are the other demographic variables affecting the teachers' computer competency such as age, gender, qualification, type of school and their experience. Also the researcher wanted to know how far computer competency is related to attitude towards computer and computer anxiety


1. Lack of Professional development
2. External factors suchas no access to appropriate
3. Varied personal attitude towards technological
5. Lack of awarenessof the benefits of technology
4. Persistence of traditional education in some educationalsettings due to the absence of professional training

3. Literature Review

Hendradi, Purwono (2023) shows the technology requirement for implementing e learning teaching pedagogy in Indian education system

Saha, Trishita (2023) Figures out the various problems faced by the students in adapting to elearning system

Yifei Yan (2022) discuss the impact of online learning during covid 19 with the prospectiveof students and teachers

Mona Ali Alasmari (2022) discussed that teachers of Saudi Arabia have general neutral response about implementing the online learning though they have positive attitude towards the advantages of its implementation.

Sanya Duggal (2022) discussed that design effectiveness, course content, Infrastructure Dependability are the main factors affecting E learning and it's acceptance for incorporating in Indian Education system.

Emad Mushtaha et.al. (2022) discussed that in online learning there is a advantage of flexibletime and place.

Katz (1995) discussed that there is "no "significant" difference between the (attitude) scoresof men and women".

Sadequl (2001) examined school principal's attitude in using technology in school from turkey, he discussed that school principal attitude is positive but the principals did not knowthe tools that were in used by school teachers.

Argyris and Kynigos (2004) researched the schools teachers situated in Greek, those teachers wereusing the innovative technology in computer for teaching maths subject, the school teachers act as motivator rather than instructor.

Vryzas and Tsitouridou (2004) concluded that though computer knowledge increase the credibility but should be taken on taken the compulsory mode to impart the computer training.

Sharpe (2004b) found that Teachers think about external factors to be responsible fortechnological tools not adopted by all rather they don't think of internal factors or underlying causes associatedwith affective domain.

Issroff and Jones (2005) discussed that there have been different issues related to socio economics, as these factor may arise the fear among some section of society, so these issues to be considered before using any ICT tools. It is worthless to use these tools if socio economics issues are not considered.

Jones and Jones (2005) discussed the Website-based subject management tool effectiveness and the attitude of teachers and students in using these tools. results were positive and concluded that internet sources are very effective in E Learning pedagogy.

Tsai and Lee (2005) questioned seventy eight teachers from Taiwan, it was surprisingly concludedthat school teachers were positive in the easiness of using the ICT tools, rather the teachers weighted ease of using over the other factors, still they are not ready to introduce E Learning pedagogy in schools.

Vasiliki Vrana (2005) in their research work analyzed both the teachers and students attitude for implementing online learning pedagogy, it was conclude that the teachers and students has similar opinion regarding positive attitude in implementing the ICT and the difficulties mightbe coming its implementation.

Albirini (2006) had researched on the school of Syria, in his research work he took EFL English as Foreign Language in Syria and studied opinion of the school teachers about theusage of ICT tools, it was noticed that there have been positive attitude among teachers implementing the ICT tools.

Swatman and Teddy (2006) in their research work analyzed the willing ness of the teachers in Hongkong about the usage of E Learning, it had been found that female and male teachers, teacher of primary, secondary schools and also the location of school also affects the willingness of school teachers attitude of willingness towards implementing the ICT tool.

Chen, Huang and Liaw (2007) claimed that "only a small quantity of online learning literature assesses instructor and student attitudes toward using e-learning as a teaching and learning tool.

Alan and Wong (2007) studied among the Malaysia student "teachers" assess the difference for Information technology attitude based on gender. Results revealed that gender has no rolein determination of usage / liking the E-learning practices.

Further it was shown that if some help is given to those who dislike it, but if their problem is resolved they start liking the Information Technology

Fongsoonfook Al-Zaidiyeen, Leong Laimei (2010) studied ""teachers" use of technology and attitude in

classroom". They concluded that "teachers" have a lesser level in the use of ICT for the educational purpose, "teachers" have positive attitude in using ICT and a "significant" strong correlation between "teachers" attitudes in using ICT, level of ICT use and their was found. They suggested that ICT in educational use should be given more weightage.

Akaslan & Law (2011) conducted a study that investigated the extent to which the Higher Education Institutes associated with the science of electricity in Turkey are ready for e- learning. It also examined two factors that affect the perceptions of academic staff on e- learning: Descriptive and inferential statistics were computed. Overall, the findings indicatedthat the academic staff in the HEI associated with the subject of electricity in Turkey generallyshow positive experiences, confidences and attitudes towards e-learning. Their willingness toadopt E-Learning practices is enough, their positive attitude and motivation needs to be strengthened.

Krishna Kumar R., Rajesh K M. (2011) focused a study on the attitude of "teachers" of highereducation towards e-learning.

Al-Furaydi (2013) determine "readiness level for the e-learning in several aspects such as attitudetowarde-learning, and computer literacy also this study attempt to investigate the main barriers that EFL "teachers" have to encounter while using ICT tools. The sample of the study is 71 EFL"teachers" from the public school, who were randomly selected to take part in the questionnaire".

They showed that the intensity of the computer literacy had a positive influenced on the attitude toward e-learning among EFL "teachers" in the public school. The poor support of school administration in e-learning indicates that there is an administration gap between the Minister of Education and school's administration".

Kisanga (2016) conducted study on the 258 "teachers" from 4 institutions of the higher education using stratified and random technique of sampling. They did the literature review and questionnaire was done for collecting the data. "It is recommended that training in e-learning needed to be provided to "teachers" to widen their understanding e- learning. There is a need to strengthen factors associated with teacher's attitudes towards on learning. Results fromthis study are of particular importance to "teachers" and the education stakeholders in Tanzania".

Earle (2002) discussed the difficulties for using the technology for classroom teaching learning,he found that there are outside factors like support, access, resources, time and training and intrinsic such as, practices, resistance, beliefs and attitudes.

Chu and Chang (2006) researched to find out the factors that affects eight school teachers in using

technology for improving creativeness in teaching learning. These causes had been divided into four different categories: curricular issues, social, personal and environmental. It was observed that still there had been many teachers despite of all their effort to use the ICT technologystill they are lagging because of lack of infrastructure and lack of other related technologies

Kay (2008) find out that once the teachers were given sufficient technical knowledge about use of using the computer technology for providing the E learning technology, their technology related phobia reduced to a significant level.

Agbu et al. (2010) researched to find out the manifestations and symptoms of "techno-stress" among people. The research had been conducted to find the "techno stress" level among administrativeand academic staff of distance and open learning institution, gender and age related issues were included on manifestations. 101 administrative (49) and academic staff (52) were made to participate, the range of agewas 20-69, average age: 35 years, the academics staff were randomlyselected. They responded "techno- stress" questionnaire that had been designed to conduct the study. Mean, SD, t-test, ANOVA and correlation statics had been used in analyzing the responses. It had been identified that technostress level among the nonacademic staff was less than the technostress level of academics stress.

Efe (2011) did their research to examine student teacher's from science background for their experience with educational related technology, their beliefs for their use, their beliefs for the students use and their intentions in using educational technology in the science subject instruction.Four-hundred- forty-eight science "teachers" students of various subjects and levels were made to participate for study. For the questionnaire data collection were framed, it had been concluded that scienceteachers from different specialization have different intentions of using the Educational technology, also it had been concluded that the senior teachers motivate more their students to use educational technology and make their students believe more in usingthe educational technology.

Chen (2012) find out that elementary EFL "teachers" in school of Taiwan have computer related phobia and lower level of self-efficacy. Teachers were tested based on some background knowledge. This research work find out there is lot of computer related phobia in the school teachers of Taiwan, also there was lots of lower self-efficacy. It was analyzed that if the self- efficacy is improved the computer related phobia is reduced.

Cetin kaya and Keser (2014) discussed that "teachers" commented many issues about this educational technology, there could be lack of repair facility if board, touch pens or any other itemis faulty. In time correction of these technology is not easy, which will make the use of these technology to be very unhealthy.

Rolon (2014) pointed out that "teachers" still face the classic challenge in integrating technologybeyond various classroom activities. The increasing use of the ICT in society also creates another pressure forthe "teachers"

in fulfilling their academic related-tasks given by super intendents, curriculum specialists, and administrators, to adopt ICT at the high level of academic purposes. The aim of research is to find out the relationship among technology acceptancemodel, work overloads, job insecurity and "techno-stress" in high school "teachers" in Indonesia.It is dependent on perspective given by the social cognitive theory developed by Bandura (2001) highlighting the interactions of behaviors, personal, and environmental factors allowing individuals to create and receive changes. In particular, this basic premiseis also reflected in the "techno-stress" model by Brod (1984) emphasizing the stress in work-place causedby the inability to find with ICT's that had negative consequences both in personal and organizational performances.

Lim and joo (2015) studied the correlation between school teachers of secondary level technology support, perception in using it for school, in the use of technology and techno stress inthe country of Korea, it was concluded that the support from organization has impact on reducing the stress also it was analyzed that lower level of techno stress improves the attitude of the school teachers for using the technology..

Fernandez-Diaz and Fernandez-Cruz (2016) had research on the large sample of "teachers" of 1433 "teachers" and 80 schools in Madrid community, Spain have "significant" differences between the low skills level that needed to be improved for introducing the technology to studentsand the optimal skills requirement.

Rosalina, Elsa et.al. (2020) studied the difficulties in applying the E learning such as quota, internetconnection, the location, and E learning process, itself such as the teacher's less proficient in technologyto make online teaching learning interesting and poor soft skills of the teachers, severalteachers stated that the intensity of using online teaching learning is different in different conditions and places

Lokanath Mishra et.al. (2020) studied perceptions of teachers and student on web based learning and teaching modes and discuss the issues related in the implementation.

Ambika Selvaraj et.al. (2021) discussed the advantage of using an e learning in the India and alsomajor challenges in implementation and it's operation.

Earle (2002) discussed the difficulties for using the technology for classroom teaching learning, the found that there are the external factors such as support, access, resources, timeand training and intrinsic such as, practices, resistance, beliefs and attitudes.

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Vasiliki Vrana (2005) in their research work analyzed both the teachers and students attitude for usingan online learning pedagogy, it was concluded that the both the teachers and students group have the same opinion on the positive attitude in implementing the ICT and the difficulties might be coming n it's implementation.

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Chu and Chang (2006) researched to find out the factors that affects eight school teacher in using technology for improving creativeness in teaching learning. These factors are divided into four different categories: curricular issues, social, personal and environmental. It was concluded that there are many teachers despite of all their effort to use the ICT technology still they are lagging because of lack of infrastructure and lack of other related technologies.

Chen, Huang and Liaw (2007) claimed that "only the small amount of on-learning literature assess both student attitudes and instructor toward using on-learning as a learning and teaching tool.

Wong and Alan (2007) studied among Malaysian student "teachers" assess the "Gender differences in attitude towards information technology". "Results revealed that gender has no role in determination of usage / liking the E-learning practices.

However, when assistants are introduced to support the learners with understanding the new on-learning the satisfaction increases". it was due to the students being able to collaborate and discuss the problems with the help of assistants. it shows that on-learning can become the useful resource even to those who don't like it at first, as long as the cause they dislike it are sort out.

Kay (2008) find out that once the teachers were given sufficient technical knowledge about use of using a computer technology for providing the E learning technology, their technology related phobia reduced to a significant level.

Al-Zaidiyeen, Fongsoonfook Leong Laimei and (2010) focused on study ""teachers" levels of technology and attitudes use in classroom". The study concluded that "teachers" had a low level of ICT use for educational purpose, "teachers" hold positive attitudes towards the use of Information and Communication Technology and a "significant" positive correlation between "teachers" level of ICT use and their attitudes towards Information and Communication Technology was found. They purposed that Information and Communication Technology use for teaching purposes should be given higher consideration than it currently receives.

Agbu et al. (2010) researched to find out the manifestations and symptoms of "techno-stress" among people. The research was conducted to find the "techno stress" level among administrative and academicstaff of distance and open learning institution, gender and age-related issues were included on manifestations. 101 administrative (49) and academic staff (52) were made to participate, the range of agewas 20-69, average age: 35 years, the academics staff were randomly selected. They responded "techno-stress" questionnaire that are designed to conduct the study. Mean, SD, t-test, ANOVA and correlation statics are used in analyzing the responses. It had been observed that the technostress level among the nonacademic staff was less than the technostress level of academics stress.

Akaslan & Law (2011) analysed a study that found the depth to which the Higher Education Institutes are associated with the science of electricity in Turkey are ready for on-learning. It also being examined that the two factors that affect the perceptions of education staff on e- learning:

Krishna Kumar R., Rajesh K M. (2011) focused a study on the attitude of "teachers" of higher educationtowards on-learning. The results of the study showed that the "teachers" had a favorable attitude towards on-learning as well "teachers" who are very familiar about the computer and ICT differ in the attitude towards on-learning when compared to "teachers"who are not very much familiar with technology. Attitude plays an important role in using technology as a strong tool for a positive change. There must be programs at higher educational institutions which could focus on developing a positive attitude among "teachers" towards e-learning and information and communication technology.

Efe (2011) did their research to examine student teacher's from science background for their experience with educational related technology, their beliefs for their use, and their beliefs for the students use and their intentions in using educational technology in the science subject instruction. Four-hundred- forty- eight science "teachers" students of various subjects and levels were made to participate in study. For the datacollection using questionnaire were framed, it was being observed that the science teachers from different specializationhave different intentions of using the Educational technology, also it was being observed that senior teachers motivate more their students to use educational technology and make their students believe more in usingthe educational technology.

Chen (2012) find out that elementary EFL "teachers" in school of Taiwan have computer related phobia and lower level of self-efficacy. Teachers were tested based on some background knowledge. This research work find out there is lot of computer related phobia in the school teachers of Taiwan, also therewas lots of lower self-efficacy. It was analyzed that if the self-efficacy is improved the computer related phobia is reduced.

Ali Asghar Yousefi Azarfam (2012), Yalda Jabbari addresses the phenomenon of technophobia which is a discouraging factor that obstructs the successful application of technology among the teachers. In doing so, it tries to look into the factors causing this sort of anxiety by considering some teachers' experiences. It had been observed that use of technology is being determined by the wide range of the factors, ranging from the external factors such as an access to appropriate the materials and professional developmental opportunities to the more internal factors such as an awareness of the benefits of personal attitudes and technology towards technological innovations, and the persistence of traditional education in some educational settings dueto absence of the professional training leads the researcher to the conclusion that it is very necessary to the train teachers about new technologies, so that the contents to be produced can be used letting instructors to relieve from computer anxiety.

Al-Furaydi (2013) determine "readiness level for the e-learning in several aspects such as attitude towarde-learning, and computer literacy also this study attempt to investigate the main barriers that EFL "teachers" have to encounter while using ICT tools. The sample of the study is 71 EFL "teachers" from the public school, who were randomly selected to take part in the questionnaire". The result showed thatthe level of computer literacy has a positive influenced on the attitude toward e-learning among EFL "teachers" in the public school. The poor support of school administration in e-learning

indicates that there is an administration gap between the Minister of Education and school's administration".

Cetin kaya and Keser (2014) discussed that "teachers" commented many issues about this educational technology, there could be lack of repair facility if board, touch pens or any other item is faulty. In time correction of these technology is not easy, which will make the use of these technology to be very unhealthy.

Rolon (2014) pointed out that "teachers" still face the classic challenge in integrating technology beyondvarious classroom activities. The increasing use of ICT in the society also creates another pressure for the "teachers" in fulfilling their academic related-tasks given by superintendents, curriculum specialists, andadministrators, to adopt ICT at a high level of academic purposes. The aim of this research is to investigatethe relationship among technology acceptance model, work overloads, job insecurity and "techno-stress"in high school "teachers" in Indonesia. It is based on the perspective given by the social cognitive theorydeveloped by Bandura (2001) highlighting the interactions of behaviors, personal, and environmental factors allowing individuals to create and receive changes. In particular, this basic premise is also reflectedin the "techno-stress" model by Brod (1984) emphasizing the stress in work-place caused by the inability to deal with ICT's that could have negative consequences both in personal and organizational performances.

Lim and joo (2015) studied the relationships between the school teachers of secondary level technology support, perception in using it for school, in using technology and techno stress in the country of Korea, it was concluded that the support from organization has impact on reducing the stress also it was analysed that lower level of technostress improves the attitude of school teachers

for using the technology.

Dr. Carol Jean Williams (2015) addressed the lack of investigation of K-12 teachers' attitudes toward computer technology use in schools. The study examines instructor factors that could have an impacton how computer use is implemented in the classroom. This study included a sample of 179 teachers from a school district in Northeast Mississippi. The study, known as the Computer Attitude Scale (CAS), has two parts. Teachers were required to enter demographic data in section one, including their education level, teaching level, teaching field, age, gender, teaching experience, and access to a computer at home. A 40-item survey was employed in the second section to gauge the opinions of in-service instructors towards computer technology. The mean variations in attitudes based on computerexperience, computer at home, teaching field, teaching level, and age were analysed using analysis ofvariance (ANOVA). The result revealed that there were significant differences between teachers' attitudes as related to the teaching levels. No significant differences were found between computer anxiety, computer confidence, computer liking, and computer usefulness based on age, and teaching field. T-tests were used to analyze mean differences in attitudes based on gender and ethnicity. No significant differences were found between computer anxiety, computer confidence, computer liking,and computer usefulness based on ethnicity and gender. From these results, it was concluded that school districts could provide opportunities for in-service training and staff development for all teachers in educational technology with focus on integrating technology with curriculum. It was also concluded that teachers should be trained in the ways that technology can be used in their work environment.

Kisanga (2016) conducted a study on a 258 "teachers" from 4 institutions of higher education using stratified and random technique of sampling. They did the literature review and the questionnaire was done for collecting the data. "It is recommended that training in e-learning needs to be provided to "teachers" to widen their understanding e- learning. There is also a need to strengthen factors associatedwith teacher's positive attitudes towards e-learning. Results from this study are of particular importanceto "teachers" and the education stakeholders in Tanzania

Fernandez-Diaz and Fernandez-Cruz (2016) did a research on a large sample of “teachers” of 1433 “teachers” and 80 schools in Madrid community, Spain have “significant” difference between the low skills level that needed to be improved for introducing the technology to students and the optimal skills requirement.

Rosalina, Elsa et.al. (2020) studied the difficulties in applying the E learning such as quota, internet connection, the location, and E learning process, itself such as the teacher’s less proficient in technologyto make online teaching learning interesting and poor soft skills of the teachers, several teachers stated that the power of using the online teaching learning is different in different conditions and places

Lokanath Mishra et.al. (2020) studied perceptions of students and teachers on web based learning and teaching modes and discuss the issues related in the implementation.

Ambika Selvaraj et.al. (2021) discussed the advantage of using the online learning in India and also themajor challenges in its operation and implementation.

Anita Yadav, Dr. Manju Sharma (2021) found out the attitude of teaching towards e-education at the different levels of academics. The nature of this study are survey. The total of 320 secondary & senior students of secondary school were included in the study. A self-made attitude scale are used to collect data. The mean, standard deviation, and t-test are used in analyzing the data. From the analysis of the obtained data, it was concluded that there are no significant difference between attitudes of teaching towards e-education at different levels of academics

Emad Mushtaha et.al. (2022) discussed that in online learning there is an advantage of flexible timeand place.

Mona Ali Alasmari (2022) discussed that teachers of Saudi Arabia have a general neutral response about implementing online learning though they had a very positive attitude towards the advantages of itsimplementation.

Sanya Duggal (2022) discussed that design effectiveness, course content, Infrastructure Dependabilityare the main factors affecting online learning and its acceptance for incorporating in the Indian Educationsystem.

Factors which exist in the literature towards e-learning among Schools Teachers in the relation toself-belief and technophobia

Dependent variable-Computer Competency
Independent variable- Technophobia and Self belief

Demographic variables- gender, qualification, Age, Teaching experience

4. Research Gap

a. Much research is not done in India where there is much socio-economic and geographical differences.
b. Not much work is done on the primary and middle school teachers with reference to self-belief of teachers and stress related to technology competency.
c. Schools located in diverse Geographical location viz highly urban and highly rural location may have different infrastructure available which may have impact on E Learning pedagogy.
d. School Teachers from different subject's specializations may have different computercompetency.
e. There is the gap in the computer competency arising due to attitudinal, motivational andanxiety factors in the teachers of primary school the city. This study can enable the other investigators to study with the population of their region. Different research studieshad investigated the relationship between computer competency and attitude towardsthe computer usage (Alexander & Benjamin, 2013; Chang, Lieu, Liang, Liu & Wong, 2012; Jegede, Dibu-Ojerinde & Ilori, 2007; Albirini, 2006).
f. Teachers' low level of access to school computers may have played a role in teachers'modest computer competence. A very high positive correlation between the teachers' attitudes towards ICT in education and the perceptions of computer attributes (Alberni, 2004)

There shall be a comparative study of attitude of School Teachers of different locations toknow their willingness/ reluctance in using the ICT tools.

5. Research Objectives

(i) To understand the difference in attitude, self-belief and technophobia among Primary and Middle School Teachers.

(ii) To determine impact of technophobia on attitude of the Primary and the Middle School Teachers.

(iii)To analyze relationship between attitude and self-belief of Primary and Middle School Teachers.

(iv)To suggest solutions that address certain problems based on my study results.

6. Research Methodology

6.1 Hypothesis

1). Attitude towards providing E-Learning faced by the teachers of Urban and Rural teacher.

H 0: "There is no significant difference between the teaching methodology of Urban and Rural schools teachers about E-learning Methodology.

H 1: "There is significant difference among teachers of urban and rural schools with respect to Technical Understanding and its dimensions

2.) "Study of Techno-phobia" among school teachers with the level of Primary and Middle School, locality of school and "academic streams".

H 0 : "There is direct relation between School teacher's understanding of E - Learning Methodology and Self - Belief.

H 1 : "There is no relation between Primary and Middle school teacher's level of understanding with rural and urban schools.

3). Attitude of teachers of Primary and Middle school's towards E-Learning and Self-Belief.

H 0 : "There is significant difference between the E-Learning and Self-Belief of Urban and Rural schools teachers about E-learning Methodology.

H 1 : "There is no significant difference between the E-Learning and Self-Belief of Urban and Rural schools teachers about E-learning Methodology.

How to measure Technophobia?

The investigator used Computer Anxiety Rating Scale (CARS) developed by
Heinssen, Glass & Knight, (1987) to measure level of computer anxiety in the primary school teachers. Computer anxiety was represented by a 5-point scale ranging of SD (Strongly Disagree) to SA (Strongly Agree). This tool consists of 19 items out of which10 were positive and 9 were negative items.

Computer Anxiety Rating Scale –
CARSInstructions:
For each statement, decide whether you disagree or agree with the statement using the following 5 point scale ranging from strongly disagree to strongly agree. In the box to the right of each statement, fill in the number onthe 5 point scale that best describes your level of disagreement or agreement.

https://scales.arabpsychology.com/s/computer-anxiety-rating-scale-cars/#gsc.tab=0

The Teachers' Attitudes Toward Computers (TAC) questionnaire was developed during 1995-97 for a study of the effects of technology integration education on the attitudes of teachers. The TAC was originally constructedas a 10-part composite instrument that included 284 items spanning 32 Likert and Semantic Differential scales (Christensen & Knezek, 1997). Sets of items were selected from 14 well-validated computer attitude survey instruments during the construction process (Christensen & Knezek, 1996).
Teachers' Attitudes Toward Computers (TAC) questionnaire is a 95-199 item Likert/Semantic Differential instrument for measuring teachers' attitudes toward computers on 7-20 subscales. Computer Importance and Computer Enjoyment are aligned with similar subscales on the Young Children's Computer Inventory and Computer Attitude Questionnaire.

https://iittl.unt.edu/sites/default/files/Instruments/TeachersAttitudesTowardComputers.pdf

Scoring Procedure for computer anxiety scale
Computer anxiety scale items, which were stated negatively, are coded in the reverse as 5, 4, 3, 2 and 1.
Items, which were stated positively, are coded as 1, 2, 3, 4 and 5.

Table 3.6: The scoring procedure of the computer anxiety scale
Response

	Positive	Negative
Strongly Disagree	1	5
Disagree	2	4
Neutral	3	3
Agree	4	2
Strongly Agree	5	1

Table: The positive and negative scoring items of the computer anxiety scale

Classification Items
Positive 1, 3,8,11,12,13,14,15,16,18
Negative 2, 4, 5,6,7,9,10,17,19

ATTITUDE TOWARDS COMPUTER USAGE SCALE

The investigator used attitude scale developed by Victor (2010) to measure the attitude of the primary teacherstowards computer usage. Attitude towards computer usage was represented by a 5-point scale ranging from SA(Strongly Agree) to SD
(Strongly Disagree). This tool consists of 43 items. It includes the following dimensions Personal, Affective,Teaching & learning and Usage confidence.
This scale contains 20 positive and 23 negative items, Items, which were stated negatively, were scored in thereverse order.

Table: The scoring procedure of attitude towards computer usage scale of the primary school teachers.

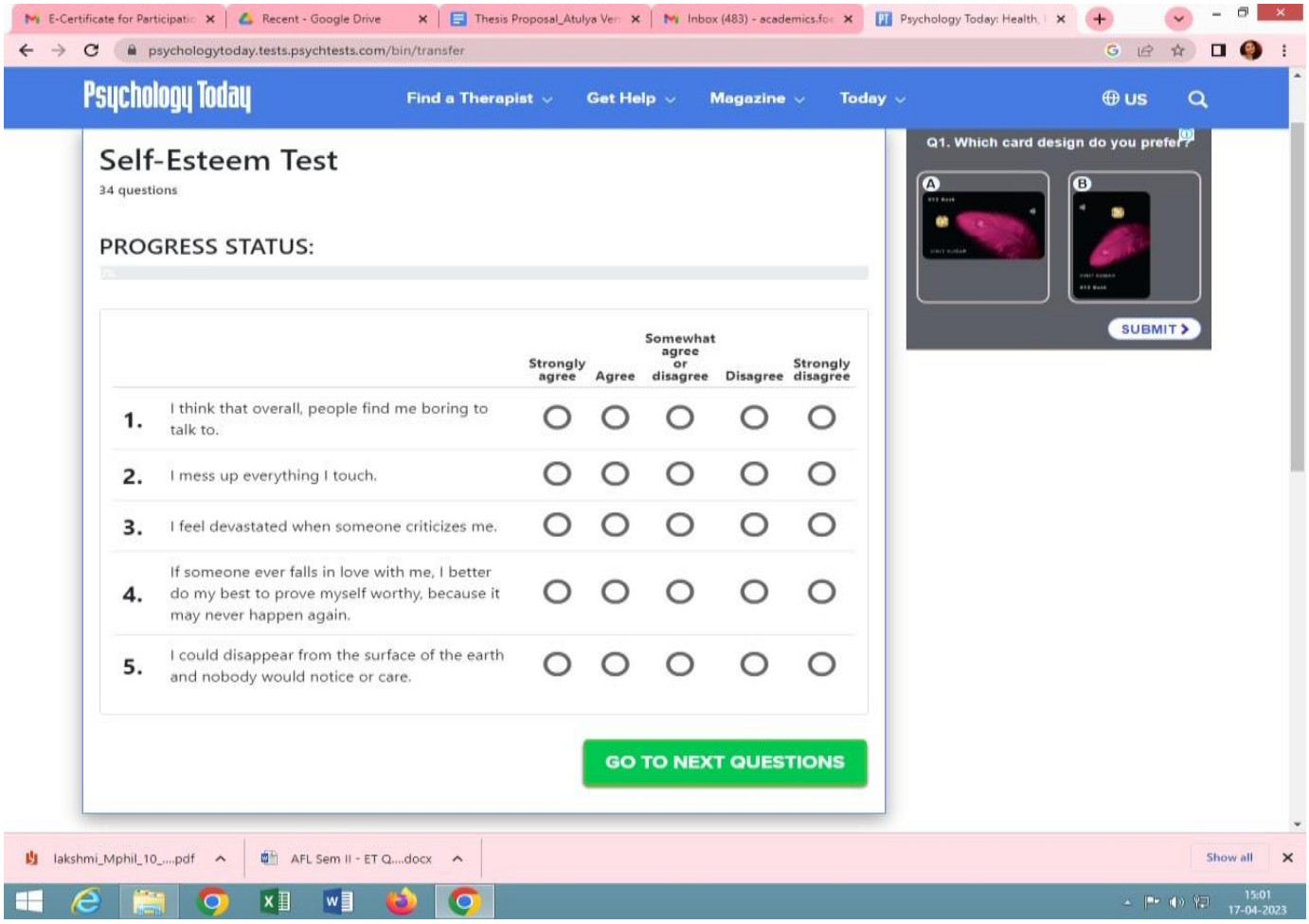
	Positive	Negative
Strongly Disagree	5	1
Disagree	4	2
Neutral	3	3
Agree	2	4
Strongly Agree	1	5

How to measure Self Belief
9 Self Esteem Questionnaire (Rosenberg Self Esteem Scale)

The *Lawrence Self-Esteem Questionnaire* (LAWSEQ) uses a three-point Likert scale appropriate for use with primary school children. The central construct measured is interpersonal competencies. The original scale, developed in 1981, resulted from work with first-year students in Belfast, Northern Ireland (N=120).

The most recent version, published in 2011, includes 16 items. It is self-scored, and there are no sub-scores. The result is an overall self-esteem score. The LAWSEQ has an alpha of .73. The scale is unidimensional (RandCorporation, 2018).

The *Single-Item Self-Esteem Scale* (SISE) developed by Robins, Hendin, and Trzesniewski (2001) measures global self-esteem using one question. Respondents rate their level of agreement with the statement, “I have highself-esteem.” The 5-point scale ranges from 1 (not very true of me) to 5.


E-Certificate for Participatic
Recent - Google Drive
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Inbox (483) - academics.foc
Psychology Today: Health
psychologytoday.tests.psychtests.com/bin/transfer
Psychology Today
Find a Therapist
Get Help
Magazine
Today
US
Self-Esteem Test
34 questions
PROGRESS STATUS:
Strongly agree
Agree
Somewhat agree or disagree
Disagree
Strongly disagree
1. I think that overall, people find me boring to talk to.
2. I mess up everything I touch.
3. I feel devastated when someone criticizes me.
4. If someone ever falls in love with me, I better do my best to prove myself worthy, because it may never happen again.
5. I could disappear from the surface of the earth and nobody would notice or care.
GO TO NEXT QUESTIONS
Q1. Which card design do you prefer?
A
B
SUBMIT
lakshmi_Mphil_10_...pdf
AFL Sem II - ET Q....docx
Show all
15:01
17-04-2023

Research Design

In Research design is a detailed investigation and the process for testing the hypothesis and the dataobtained is being analyzed. In research procedure is the sequence of steps, ranging from collection ofrelevant data and to analyze the research objectives. ANOVA designs will be used for analyze the scores of attitude towards e- learning of "teachers" in relation to school type, "self-belief" and "academic streams".

The research work is composed of selecting the sample population. In our research work, the targeted population is from Uttarakhand and from the targeted population the sample population will be selected based on the random sampling approach, where each sample will have equal opportunity of being selected. Random sampling the most unbiased sampling technique.

In the study, a descriptive research method will be used. This method are concerned with the surveying, to describe and study the current phenomenon or the conditions, issues, and relationships that exist. Questionnaire will be framed and surveyed using Primary and Middle school teachers of Uttarakhand.

In this research work, the researcher will compare rural and urban "teachers" of "primary and secondary schools of Uttarakhand" in the different "academic streams", regarding the attitude of E-learning, "self-belief" and technophobia.

In this research work, the sample from schools of Uttarakhand state will be selected. For this investigation, the population of rural and urban "teachers" of "primary and Middle Schools" of Uttarakhand state will be taken.

The Teachers from Primary and Middle school will be selected accordingly to procedure.

Primary School "Teachers" sample distribution.

The sample will be selected on two levels for "Teachers" of primary schools viz.

Primaryschools' sample.

Primary school “teachers” sample

Middle School “teachers” sample distribution

The sample will be selected on two levels for “Teachers” of Middle schools viz. Middle schools’ sample

Middle School “teachers” sample

“Primaryand Middle schools” Sample

Tool: For the current study, both descriptive and inferential statistical techniques Were used. The descriptive statistics such as standard and mean deviation and inferentialstatistics such as correlation, t- test and one-way ANOVA and Regression were used. ‘T’ test Analysis

T-test was used to find out whether there are differences in the variables, namely computer competency, attitude towards computer and computer anxiety of primary school teachers regarding gender and age.

One-way ANOVA

One-way ANOVA test by Tukey's Multiple post hoc procedure for pair-wise comparison of age, type of school and experience with respect to computer competency,computer anxiety and attitude towards computer usage of primary school teachers.

Regression analysis

Regression analysis is done for the dependent variable (computer competency) with predictor variables (computer anxiety, attitude toward computer usage)

SPSS Tool will be used to analyze the responses. ProposedHypothesis will be justified/ verified.

7. Expected Outcome of the Research Work

The proposed research work will analyze the attitude of Uttarakhand school teacher from diversifiedlocality, different school levels and academic streams, with respect to their self-belief and technophobia about E-Learning pedagogy.

8. Proposed Month-wise plan of work and targets to be achieved:

	ACTIVITIES	Months-Year														
S. No.		oct-23*	Nov-23	Dec-23	Jan-24	--	--	--	--	--	--	--	--	--	--	D-24
1	Thesis Proposaldefense															
2	Extended Literature Review															
3	Questionnaire designing															
4	Pilot testing and Refinement of questionnaire															
5	Data collection															
9	Data preparation															
10	Data analysis & Results															
11	Report writing:Chapter1. Chapter 2……..															
12	Report writing: Chapter 3: ……															

14	Thesis Writing, Publications and Other Requirements															
15	Thesis Submission															

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